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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,837	11/15/2001	William Weizhong Chen	SQD-1019US	7175

7590 09/02/2003

Intellectual property Law Department
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1415 South Roselle Road
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EXAMINER

ROJAS, BERNARD

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,837

Applicant(s)

CHEN ET AL.

Examiner

Bernard Rojas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 13-17 is/are withdrawn from consideration.

- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of embodiment 2 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that embodiment 3 falls within claim 7 with the additional element of the spring strap. This is not found persuasive because although the spring strap negates the need for the asymmetrical blade in claim 8, the contact strap is a change in the contact structure. There are two separate ways of obtaining the same result of sequential contact operation by altering the contact structure [embodiment 3] or the blade structure [embodiment 2].

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-6 and 13-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants admitted prior art figures 1a and 1b in view of Abot et al. [US 5,777,286].

Claim 7, applicants admitted prior art figures 1a and 1b disclose an electromagnet [12, 14], a slideable carrier [32] with a distal and a proximal end, an armature [16] affixed to the distal end of the slideable carrier, a blade [30] with two

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contacts [20, 24], affixed to the proximal end of the slideable carrier and two stationary contacts [18, 22].

Applicants admitted prior fails to teach the use of a positive temperature coefficient receptivity element (PTC) to provide arc suppression.

Abot et al. discloses an electrical contactor with a blade, and electromagnet and a positive temperature coefficient receptivity element (PTC) to provide arc suppression [col. 3 lines 19-29].

~~It would have been obvious to one of ordinary skill in the art at the time the~~
invention was made to use a PTC element to provide arc suppression for the contactor.

Claim 8, as disclosed by the applicants admitted prior art, the use of spring [34] to control the bride causes the bridge to be asymmetric so the contact pairs are brought into contact substantially sequentially.

Claim 9, the slideable carrier includes an aperture [figures 1a and 1b] for insertion of a compression spring [34] to ensure electrical contact between the two sets of contacts.

Claim 10, It would have been an obvious matter of design choice to construct the PTC element of a pure metallic material, since applicant has not disclosed that this particular combination solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the disclosed PTC material of Abot et al.

Claim 11, It would have been an obvious matter of design choice to construct the PTC element of a conductive polymer material, since applicant has not disclosed that

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this particular combination solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the disclosed PTC material of Abot et al.

Claim 12, it would have been an obvious matter of design choice to construct the PTC element of a ceramic material, since applicant has not disclosed that this particular combination solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the disclosed PTC material of Abot et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Aymami-Pala et al. teaches a standard contactor with arc suppression means.
- Lenzing and Grunert et al. teach a contactor with the claimed element with the exception of the PTC element.
- Benard et al. teaches a contactor with PTC arc suppression means.
- Belbel et al., Lemmer, Saletta et al. and Fischer et al. teach different types of contactor bridge structure.
- Grosse-Wilde et al. teaches that PTC elements can be used as protective element in switching applications.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (703) 305-3873. The examiner can normally be reached on M-F (7-4:30), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (703) 308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Br

A handwritten signature in black ink, appearing to read "Michael Friedhofer", written in a cursive style.

MICHAEL FRIEDHOFER
PRIMARY EXAMINER